WIX1002 Fundamentals of Programming
Tutorial 8 Class

1. Write statements for each of the following
   a. Define a class Student.
   b. Declare the instance variable that used to store contact number.
   c. Create the constructor that initializes the contact number to null.
   d. Create another constructor that assign the parameter value to the contact number.
   e. Create an accessor and mutator method for the contact number.
   f. Create a method that used to display the contact number.
   g. Create an object of the class Student.
   h. Change the contact number using the mutator method.
   i. Create an object of the class Animal.
   j. Create an object of the class Animal that used to represent a cat.
   k. Create an object of the class Number with the value 20 and 40.

2. Write statements for each of the following
   a. Define a class Digit.
   b. Declare the instance variable that used to store a number.
   c. Create a constructor that assign the parameter value to the number.
   d. Create a digitMultiplication method that returns the multiplication of the number. If the number is 1345, the method will return 60.
   e. Create a method that used to display the digit multiplication of the number.
   f. Create a tester class that displays the digit multiplication of 4567.

3. Create a class that used to represent the 2 dimension coordinate system. The class consists of constructors, instance variables, accessor and mutator method and an output method that display the x-coordinate and y-coordinate.

4. Create a class Payment that accept different type of payment methods such as cash payment, cheque payment and credit card payment. For cash payment, the class accepts the amount in cash; for cheque payment, the class accepts the amount and the cheque number; for credit card payment, the class accepts the amount, card holder name, cardType, expiration date and validation code. Use the same method name for the payment.

5. Create a class Connection. The Connection class keeps track of the number of connections to the server. Whenever an object is created, a connection is established. The class has a disconnect method and a display method that display the number of connections to the server.